
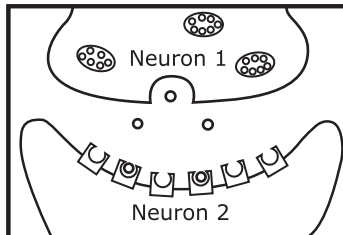


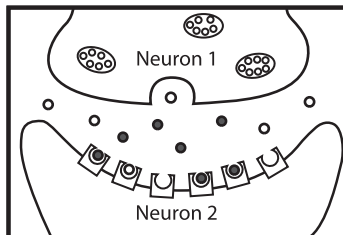
Key	
○	Acetylcholine
●	Nicotine
	Receptor

## Nonsmoker: Normal acetylcholine and receptors



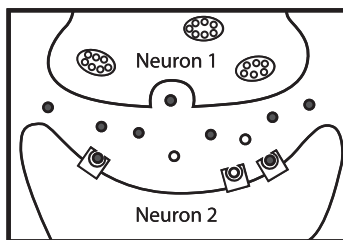
Acetylcholine receptors help with respiration, heart rate, memory, alertness, muscle movement, pleasure, and well-being. In a synapse of a nonsmoker, there is a normal amount of acetylcholine and receptors, so the neuron is working just like it should.

## New Smoker: Too many chemicals in the synapse



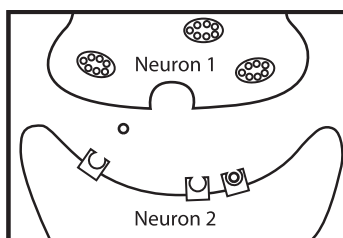
Nicotine is a similar shape to acetylcholine, so it fits into the same receptors. This makes neuron 1 send messages much more often than it should.

## Addicted Smoker: Less acetylcholine and fewer receptors



After a person has been smoking for a while, the brain decreases the amount of acetylcholine and the number of receptors. The brain does this to stop the neuron from sending too many messages.

## Quitting “cold turkey”: Not enough acetylcholine and receptors

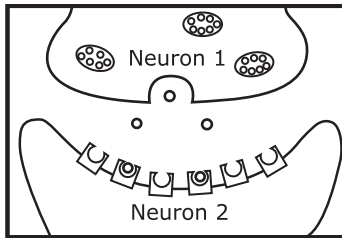


When nicotine use stops, the neuron is unable to send many messages because there is no longer enough acetylcholine. There are also fewer acetylcholine receptors. The user feels uncomfortable and has withdrawal symptoms.

# Nicotine and the Brain

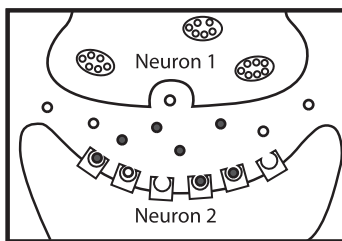
Key	
○	Acetylcholine
●	Nicotine
□	Receptor

Nonsmoker: \_\_\_\_\_



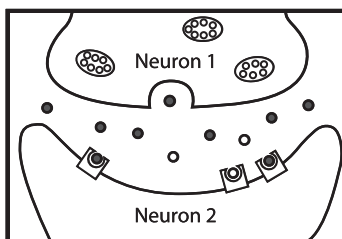
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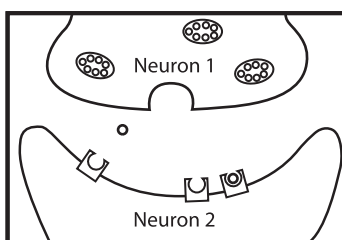
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